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# Original Communications.

## COMMON WATER AND MINERAL WATERS.

By JOHN BELL, M.D.

PHYSICIANS, as a body, do not cultivate the rich and varied field of medical literature opened to them by the study of dietetical and medical hydrology, or of the sanitary and therapeutical operation and virtues of common water and of mineral waters. Much time and ingenuity have been wasted in attempts to sustain a false theory, which attributes to alcoholic drinks—beers, wines, distilled spirits and cordials—a power to renovate the human system for the time being, when enfeebled by toil and exhausted by disease; and, also, to enable it to resist the action of causes tending to its destruction. The larger experience shows that alcohol, however modified in various liquors, is equally unfitted to preserve health in all its fulness and to ward off the attacks of epidemic and other malignant diseases; but, on the contrary, that it invites and causes a long list of maladies, not the last nor the least of which is insanity in its most deplorable forms. What a contrast is offered in the benign influence of water, the drink of drinks, so indispensable for the preservation of the body in its full tone and the proportionate development of its several organs, and of the mind in its greatest clearness and vigor. For the free use of this fluid in all climates and seasons, and in every stage of life, from infancy to old age, no special pleading nor straining and perversion of the precepts of physiology and hygiene are called for, as in the case of alcoholic drinks, in which vain attempts are made to indicate to what extent they may be indulged in, short of real, though it may not be acknowledged suicide, and to define the boundary between what some would call respectable and safe drinking and the grosser habits of intoxication, with its dread concomitants and effects on mind, body and estate. Were half the time and attention now given by medical men to the subject of alcohol, in its hygienic and therapeutical relations, devoted by them to a careful observation, record and summary of the effects of water, regarded as an aliment and as an article of the materia medica, they would, ere long, find themselves able to speak with additional authority and power as teachers of private and public hygiene and improved medical science. Even now, abundant, although scattered materials, are attainable for a history of the watery regimen, in its relations to the anatomy and physiology of the human body, and its inestimable value in the preservation of health and the cure of disease.

Let it be everywhere taught, that water forms the largest component of the several textures and organs of both animals and vegetables; it being in the proportion of more than three fourths of the entire body, and four fifths of the nutrient fluid, blood, consisting of it. Of the predominance of the aqueous over the solid parts of the entire body, a striking proof is furnished in the case mentioned by Blumenbach of the dry mummy of an adult Guanche, which, with all the viscera entire, did not weigh more than seven pounds and a half. How large and constant must be the supply of water in the first place to meet all the wants of assimilation and nutrition, from the incipient stage of digestion to the final deposit from the blood in the cells, for the growth and support of the several organs; and, in the second place, to compensate for the continued loss of this aqueous fluid from the kidneys and in the secretions from the skin and the gastro-intestinal and pulmonary mucous surfaces. In order to make up for the consumption and discharge of water in these different processes of assimilation and of disassimilation or waste, the organism is supplied, first, by the fluid taken as drink; secondly, by that which is absorbed by the skin and lungs from the surrounding air; and, thirdly, by the water largely contained in the substances used for food. Even of the solid food which we eat, not less than four fifths of it consists of water; and we might go so far as to say that nine tenths of the whole of our food is little else than pure water. If lost in any great quantity from the body, there ensues an arrest of vital action, as may be easily seen in the lower animals. Liebig shows how water contributes to the greater part of the transformations which take place in the living organism.

Prout is decided in his appreciation of the dietetic value of water, and he ranks the aqueous, together with the saccharine, the oily and albuminous, as the four great elementary, proximate or primary staminal principles. We have well-authenticated cases of persons who have lived for a length of time while abstaining from all customary food, and whose only drink was water. Of this nature is the case of Reuben Kelsey, related by Dr. Naughton in the Transactions of the Albany Institute, 1830. This man, aged 26 years, lived on water alone for fifty-three days. "For the first six weeks he walked out every day, and sometimes spent a great part of the day in the woods. His walk was steady and firm, and his friends even remarked that his step had an unusual elasticity. He showed himself a week before his death, and was able to sit up in bed to the last day." Kelsey starved himself to death, under a delusion that when it was the will of the Almighty that he should eat, he would be furnished with an appetite. Among the greatest names in medicine are found the warmest eulogists of water, as the most salutary and sustaining drink in health and among the foremost remedies in disease. It is to be deeply deplored that the profession at large is not thoroughly imbued with this truth, and does not feel it to be a paramount duty to urge on all persons its importance, and an adoption of the practice flowing from it, as conducive alike to man's physical and moral well-being and pleasure. There is abundant testimony, derived from the personal experience and extensive observations of eminent medical men, to show that the inconveniences and dangers from living in hot climates are infinitely less for water drinkers than for those who use intoxicating liquors of any description. A similar kindly and preservative power is displayed in favor of those who are exposed to the extreme and continued cold of Arctic travel and navigation, and who, under these circumstances, either from choice or necessity, have made water their sole drink, except when the occasional addition of tea or coffee was procured. This is the experience, also, of soldiers in the field and exposed to hardships of all kinds, and of men who have to carry on laborious occupations in a high temperature, as in iron foundries, glass houses, &c.

In various diseases, both acute and chronic, the watery regimen, including the external as well as the internal use of water, has been practised with success. Rhazes showed its efficacy in smallpox and measles, Samvilowitz, Cirillo and Fra Bernardo in the plague, Baynard in dropsy, and Pomme in hysterical affections. Currie, Robert Jackson and others may be referred to for statements of the use of cold water by affusion and immersion, as a good febrifuge. I can speak with great confidence, from my own observation, of the remedial value of these means in scarlatina. Forfarther details in this line I may be allowed to refer the reader to Dr. Bell's Treatise on Baths, in which the salutary operation of *hot* water as a beverage is also pointed out.

We may be asked, after these praises of common water, what is there to be said in special commendation of mineral waters. I would reply that there is no contrast, no opposition between the two; and that the difference is only in the degree of activity. The potable waters obtained from springs and rivers are all slightly mineralized, and the greater number contain the following compounds and their elements, viz., silicic acid, bicarbonates of lime and magnesia, sulphate of lime, chloride of sodium, traces of azotates or nitrates, and of chloride of potassium, and bromides and iodides, carbonic acid, oxygen, organic matters azotized and non-azotized. The proportion of these several substances foreign to water in its state of the greatest purity, as when distilled, is very small, or about one to two parts in ten thousand of water, but still enough to render it sapid and fit it to perform an important part in both the animal and vegetable organisms when regularly and freely introduced. Common potable water is, then, pure water with the slight but appreciable addition of saline and gaseous substances, whereby it is placed in close affinity to recognized mineral waters, which contain, regarding them collectively, the above-mentioned ingredients. To them we must also add sulphur, iron and arsenic. The constituents of mineral waters are combined in Nature's laboratory by Nature's pharmacy, in such a manner as to give them a therapeutic value that cannot be measured nor ascertained by a mere analysis and a knowledge of the effects of each separate constituent or element. The complex play of affinities with resulting compounds, in these waters, is not imitable by our present chemistry, and it becomes us to receive them in a thankful spirit, and make use of them as a distinct and independent class of remedies of great activity and diversified applications. They who would attribute the cure of various diseases from visiting mineral springs to the company and surroundings, or to the power of imagination and faith, evince how little study they have given to the subject. A new landscape opened to the view has never yet cured porrigo or necrosis; and one has yet to learn that rheumatic paralysis has been removed by the sight of a waterfall. The imaginative faculty is, certainly, not active in animals, such as horses and cattle, dogs and swine, which have been cured of obstinate maladies by the use of mineral waters. And, again, invalids at their own homes have had recourse to the use of these waters with signal benefit, although deprived of the new associations and scenes to which their cure would have been attributed by some writers if the same parties had gone to the springs.

Of the lately discovered mineral springs which have more or less come into vogue, my observations have been confined to one alone, viz., the Gettysburg. In its sensible properties of taste, absence of any smell, and its softness, this water resembles pure river water, but it differs from this latter in its remaining unchanged for any length of time after its being drawn from the spring. Hence it can be transported to a distance without diminution of its activity, and be used by invalids at home with the same confidence as if they drank it on the spot. In saying this, it is not meant to detract from the superadded benefits of change of air and scene, and inducements for additional exercise, to be gained by a visit to the spring itself. The Gettysburg is a mild alkaline water, with a predominance of the bicarbonates of soda, magnesia and lime. Dr. Mayer, who made an analysis, found, also, some of the bicarbonate of lithia. The total solid contents are 266 grains to the gallon of water. It sometimes acts as a mild aperient, when taken to the extent of a pint. In one case, even a gill acted as a purgative; but, for the most part, its more immediately sensible operation is by increasing the action of the kidneys. It produces in some persons a feeling of tension of the head and a slight vertigo; effects these which would suggest its use in a number of disorders of the nervous system, and, in fact, there are on record instances of its curative power in paralysis, especially that resulting from rheumatism. My own experience in the therapeutical value of the Gettysburg water enables me to speak of its usefulness in that most troublesome variety of dyspepsia, the colonic; also in hæmaturia and abdominal dropsy. In two cases of the latter disease, it restored the almost suspended action of the kidneys, after the usual diuretics had failed to do any good. In the diarrhœal stage of cholera infantum, when given in a dose of a tablespoonful at stated intervals, it will sometimes diminish and almost arrest the intestinal discharges, and alter beneficially their character, by substituting slight bilious for watery ones. As a tonic its action is well marked, and in some cases very prompt, by its relieving the patient, in a few days, from extreme debility and prostration. I have, also, seen it to be effectual in chronic rheumatism, and serviceable in neuralgia; and in some instances in which it has failed to remove entirely this latter disease, it has restored the digestion to its normal state, and the invalid has regained his health and strength.

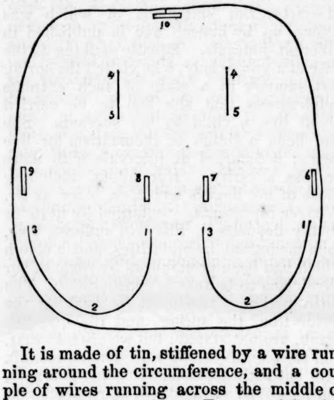
The most beneficial effects have been procured by the use of the Gettysburg water in cases of chronic rheumatism and rheumatic gout. A remarkable example of this presents itself in the case of the Rev. Dr. Moriarty, the statement of which was drawn up by himself and is published in different journals. Equally striking is the case of a young lady, who visited the spring last summer in a state of such extreme helplessness that she had to be carried about like a child by her servants. She had been a victim of rheumatism for five years; it recurred at intervals with more or less severity. Her joints, including those of her fingers and toes, were, as Dr. Weaver represents, "enlarged by urate or chalky deposits." She had suffered, also, from menstrual irregularities, and a cough which had been pronounced by some of her physicians to be that of consumption. The entire period of treatment by drinking the water from the spring, and the quantity drank, are not stated; but we are told that, "in thirteen days, she was enabled to walk with but little assistance from her servants, and improved so rapidly in all respects that she now appears to be permanently cured, being relieved from the cough, general debility and the irregularities referred to; also the enlargements or chalky deposits around the joints. When she came to the spring she weighed only 61 pounds; she now weighs over 90 pounds." I have now before me a statement, written July 22d, 1868, of heart disease associated, as is so often the case, with rheumatism of an inflammatory kind, from both of which diseases the patient, a young lady of this city, had suffered more or less severely every winter. She began to drink the water last spring, and after using it for a period not stated, "her rheumatism seemed to give way and her general health to improve, and since then she has scarcely felt the slightest pain, is now stronger, and can endure more fatigue than at any time during the last two or three years."

The ordinary quantity drank is half a tumblerful, or a gill, three times a day, to be increased according to the nature of the case, under the advice of a physician.

## TREATMENT OF CLUB-FEET.

By Truman H. Squire, M.D., Elmira, N. Y.

In the management of club-feet it is important that the treatment should be effectually continued while the patient is asleep. A *night-shoe*, which I have devised, and made use of in several cases, this season, is so simple and so perfect that I have thought best to make an explanation of it for the benefit of others.



It is made of tin, stiffened by a wire running around the circumference, and a couple of wires running across the middle of it on the under side. Two semicircular pins of tin, 1, 2, 3, to secure the two heels, are soldered in the position shown above. A couple of barriers of tin, 4, 5, rising in height about two inches, and properly braced, are so placed as to keep the toes apart. A strap of white harness leather, about an inch wide, comes up through the slot 6, goes over the right foot, down through the slot 7, up through the slot 8, over the left foot, down through the slot 9, and is buckled firmly on the under side, by which means both feet are secured in position. An additional strap passes in front of each ankle, and is secured to the anterior edges of the heel pieces. When it is desired to keep gradual tension on the tendons Achillis, an artificial muscle* may take its origin from a band just below the knee, to be inserted at the toe of the shoe, 10. A child will gradually get accustomed to this apparatus, and will wear it all night, without being disturbed in its sleep.

Any one having occasion to treat troublesome cases of club-feet will find this *night shoe* a valuable accompaniment to the other means of cure.

It is sometimes difficult effectually to prevent the toes from turning *inwards* while the child is walking in the daytime. I obviate this tendency by stretching a little dog-chain, about six inches long, between the two heels. By preventing the heels from turning *outward* I keep the toes from turning *inward*. With this fetter, the child is obliged to take very short steps.

Any tinman, having the child before him, can make the shoe which I have described, at an expense of seventy-five cents.

# Hospital Reports.

## BOSTON CITY HOSPITAL.

Reported by J. H. McCollom, House Surgeon.

*Cancerous Disease of the Neck, and Infiltration of the Pneumogastric Nerve.* Service of Dr. Cheever.—J. P. M., aged 60. The patient was admitted to the hospital on the 11th of August, 1868. He stated that, three months ago, without any known cause, he experienced prostration, loss of appetite and general *malaise;* since then, he has been gradually growing weaker and more emaciated, and now he is confined to his bed most of the time. Previous to this time the patient had enjoyed very good health, and has no hereditary predisposition to disease that he is aware of. Two months ago, a small tumor, about the size of a chestnut, was noticed on the right side of the neck, near the posterior edge of the sterno-mastoid muscle and in the subclavian triangle. This tumor has gradually increased in size up to the present time, and now a lobulated mass, quite hard to the touch, firmly attached to the surrounding muscles and fascia, can be felt in the subclavian triangle, extending under the sterno-mastoid, and inwards towards the trachea. Firm pressure causes pain and a feeling of suffocation. As the tumor has enlarged, the patient has complained of increasing dyspnœa, dysphagia and aphonia. The paroxysms of dyspnœa have been very severe at times, and much resemble those of asthma. Sibilant râles, quite marked, can be heard on the left sides of the chest and back; more marked on the right side. Increased resonance is found on the right side; in other parts of the back and chest percussion is normal. The patient has been unable to take solid food for the past four weeks, and liquids only in small quantities and very slowly. Speaking above a whisper has been impossible for the last three weeks, and even this causes great exertion, so that he is unable to speak but a few words without stopping to rest for several minutes. The patient also complains of pain in the lumbar region, extending down the thighs. He is unable to lie on his left side, and is more comfortable on his right than in any other position. There is no enlargement of the spleen or liver. The character of the pain in the tumor is more a feeling of soreness than any distinct, sharp, cutting pain, and is not very severe. The patient is much emaciated, and very anæmic. Upon a microscopical examination of the blood, there was no increase in the number of white corpuscles; the red globules presented the usual crenated appearance seen in anæmia.

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* An artificial muscle is a piece of India-rubber tubing, about three inches long, with a strong cord—tendon—attached to either end of it. To make this artificial muscle, tie a large knot in the end of the cord—tendon—slip the knot into the calibre of the tube—muscle—then ligate the end of the tube, to prevent the knot from being drawn out.

Upon entrance, the patient was given the most nourishing liquid diet possible, and three ounces of wine three times a day. Tinct. ferri chlor. gtt. xv. three times a day was prescribed Morph. sulph. gr. ¼ p. r. n.

A few days after entrance, the patient began to have a troublesome cough, with considerable sputa resembling those of bronchitis. On the 28th of August, twelve days after entrance, had a very severe paroxysm of dyspnœa. From this time up to his death, on Aug. 31st, the patient rapidly lost strength, and the paroxysms increased in severity and duration. On the morning of Aug. 31st, the dyspnœa was so severe that it was thought best to open the trachea, which was done and the tube inserted, but without avail, as the patient lived only five minutes longer.

*Autopsy*, three hours after death. It was found that the carotid traversed the growth and blended with it. The internal jugular vein was compressed anteriorly and posteriorly by enlarged glands infiltrated with cancerous disease. The pneumogastric nerve was compressed and flattened, and its fibres separated. The thyroid gland was much enlarged and infiltrated with cancerous substance, especially the right lobe, which pressed on the trachea. The cancerous mass filled the right side of the neck, pushing the trachea to the left and compressing it near the bifurcation, so that a small-sized elastic catheter could not be passed through. The growth extended down into the anterior mediastinum, which was completely filled by it, presenting an irregular lobulated appearance. The thymus and bronchial glands were generally affected. The pericardium indicated degeneration. The apex of the left lung was impinged upon, but was not diseased. The mesenteric glands were infiltrated with the disease. The liver, spleen and intestines were healthy.

The following is a report of the microscopical appearance of the pneumogastric nerve, by Dr. S. G. Webber:—

The specimen received comprised a portion of the pneumogastric nerve above the tumor, another where imbedded in the tumor, and a portion taken from below the tumor; also a small piece of the parotid.

The portion of the parotid received was healthy.

Some of the fluid from the surface of the tumor showed a large number of quite small cells of irregular shape and having very large nuclei, such as are found in rapidly growing cancer. In a hasty examination, no cells were seen with more than one nucleus.

On examining the nerve in its fresh state, no marked change was found below the tumor, though there probably was such, judging from the appearance of transverse sections which were afterwards made. The examination was necessarily hasty.

The specimens were put into chromic acid, and left for several days to harden. Then thin sections, made perpendicular to the length of the nerve, were colored in carmine solution and rendered translucent with carbolic acid. The acid was washed away with chloroform, and the specimen mounted in Canada balsam.

Sections from the portion of the nerve above the tumor showed the nerve-fibres well; the connective tissue separating the fibres was colored red, the medullary sheath was translucent, and the axis cylinder formed a small red dot in the centre. Sections from the portion below the tumor showed a marked decrease in the number of the larger nerve-fibres. The axis cylinder was colored, but the medullary sheath was either wanting or reduced to a very thin layer around the axis.

The most interesting change, however, was found in the portion of nerve included in the cancerous mass. The bundles of primitive fibres on the side towards the tumor were separated from each other to double or treble the distance which they had in sections made above or below. The space between the bundles was occupied principally by cancer cells, which had spread through the connective tissue and surrounded nearly every bundle of fibres; the neurilemma had atrophied, and its place was supplied by cancer cells. There was, however, a thin layer of neurilemma around each bundle of fibres, separating them from the cancer cells.

The relation of cancer cells to the nerve fibres in tumors implicating nerves is not generally referred to in systematic treatises. Rokitansky merely states that nerve tissues may be involved as any other structure. Wedl says nothing about the microscopic relations of the parts. Fœrster is not much more explicit.

Cruveilhier figures two cases of tumor implication—one the radial, the other a digital branch of the median nerve; but he also says nothing of the minute anatomy.

M. V. Cornil, in the *Journal de l'Anatomie et Physiologie*, v. i., 1864, p. 183, devotes an article to the production of epithelial tumors in nerves. He mentions three varieties which he had found in cases submitted to him for examination.

"1st. The nerve is included in an epithelial structure of new formation from which it cannot be enucleated by dissection; the neurilemma which separates the primitive bundles is itself transformed and is confounded at its periphery with this formation."

His second variety includes cases where the nerve is not so adherent, but it can be separated from the mass of new formation, the neurilemma only being thickened.

The third variety is a modification of the last, secondary miliary tumors on the course of the nerves, with thickened neurilemma, differing from the second variety only that they are isolated and limited by healthy tissue.

M. Cornil's first variety is the one illustrated by this case. He found, however, in one of his cases, a more advanced stage of the disease, in which the bundles themselves were invaded and the cells of new formation were found inside the sheath of neurilemma surrounding the bundles of fibres.

Another tumor has been handed me by Dr. Beach, without the history of the case, which may possibly be included under the second variety, though the possibility of separating the nerve from the cancerous mass is rather doubtful. The nerve is flattened out and closely adapted to the tumor, the bundles being widely separated from each other and passing over the surface of the tumor. In thin sections, the nerve is seen separated entirely from the morbid growth by a thick layer of connective tissue. The only relation the nerve has with the tumor is that of position, and it does not seem to have been affected, except by pressure. The difference in location may give rise to the manner in which the nerve is involved. The tumor which Dr. Beach handed me was in relation with the ulnar nerve, and possibly the sheath of the nerve being denser than in the first case, it was pushed aside without being infiltrated.

## Reports of Medical Societies.

### ESSEX NORTH DISTRICT MEDICAL SOCIETY.

G. W. GARLAND, M.D., SECRETARY.

Oct. 21, 1863. Fifth Quarterly Meeting. The Society met at the house of Drs. S. and G. W. Sargent, Lawrence. Dr. S. Sargent presented a case of *Fistula* to the Society; "for over one year there had been an opening *somewhere* between the rectum and bladder through which flatulence and fæces found their way, escaping through the urethra; fæces *during*, and flatulence *after*, micturition." No discharge of urine per anum.

Dr. Whittemore reported a successful use of pumpkin seed emulsion in two cases of *Tape-worm*. Four ounces of the seeds were given during the day and followed with castor oil. Dr. Lamb had used the emulsion in connection with tannin, with success.

Dr. Root, of Georgetown, reported a case of *Poisoning by Morphine*. By mistake a child two weeks old took one-sixth gr. Dr. Root saw the child two hours after the dose was taken, and found it pulseless; breathing four to six times per minute; gave coffee injections and used persistent flagellation for four hours; the patient recovered.

Dr. Spofford reported a case of *puerperal convulsions*, which led to a discussion by members on the pathology and treatment of puerperal *eclampsia*. The speakers accepted the pathology of convulsive movements as taught by Flourens and Marshall Hall, that no irritation, wherever its seat, or whatever its cause, can generate a convulsive movement until it has affected the spinal cord, the great motor centre. In the experience of members, women who have suffered from change in their blood constituents, as denoted by their cachectic state, are those who are most likely to suffer from convulsions. *Indigestible food* in the stomach; *intestinal irritation; irritation* of the *bladder* and *rectum*, as well as irritation of the *uterus*, may be the cause, through eccentric action, of puerperal convulsions; and as plethora and an anæmic state of the system may and do produce substantially the same nervous aberrations; and as uræmic poison produces nervous disturbance under almost any and all states of the economy, requiring for its treatment the "free use of diuretics, sudorifics, and purgations," the advocates of bleeding boldly and under all circumstances, and those who rely wholly on the use of ether, or exclusively on some drug, or combination of drugs, as oleum tiglii, &c. &c., are becoming less and less in numbers as the researches of Drs. Brown-Séquard, Carl R. Braun, Bedford and others are promulgated.

Dr. How, of Newburyport, reported three cases of *dysentery* in which acute rheumatism supervened at the commencement of convalescence. Several other members had met with like cases. Question by Dr. How, What is, if any, the pathological relation of the two diseases?

Dr. Fellows reported two cases of active *menorrhagia*, in which he found the oil of erigeron to be very effectual in ten drop doses, repeated every thirty or forty minutes.

Dr. Whittemore bore testimony to the efficacy of the oil, but had used it in twenty drop doses every two hours.

Dr. Towle reported a case of "*match eating*." The matter vomited gave out phosphorescent light in the dark. The child *partook* of the matches Sunday, and died on the following Thursday, of gastro-enteritis, without treatment, the Dr. being called too late to be of service.

Dr. Crowell reported a case of *irreducible incarcerated hernia*. Patient, man, 70 years of age, double inguinal hernia of 20 years standing. Patient attacked with severe pain over seat of rupture; total obstruction of the bowels, and great enlargement of hernial tumors. Bowels not moved by medicines nor injections; the usual manipulations also failed to reduce the obstruction.

Owing to the age and condition of the patient, and the two-fold character of the disease, an operation was not deemed advisable. The bowels became distended to an enormous extent, the pain and distress did not abate, stercoraceous vomiting supervened, and the patient seemed gradually sinking. At the end of the *third* week, the patient being apparently *in articulo mortis*, indications of action were noticed in the right tumor; it yielded somewhat upon gentle pressure, and gave out a gurgling sound. A dose of calomel was administered, followed by a dose of castor oil.

In twelve hours the bowels began to move, and evacuations were copious and frequent. Swelling gradually subsided, and patient recovered.

Dr. Chamberlain reported a case of *cerebral disease* in a child two years of age. The child had had, on several occasions, epileptic fits of a reflex origin, unattended by any peculiar circumstances. The fontanelles had closed early and the child had acquired a costive habit. Dr. C. was called to attend it during a fit of unusual severity, of which it was relieved with more than ordinary difficulty. The chief symptoms immediately following were, great heat of the head, contracted pupils, photophobia, coarse rhonchi throughout the lungs, an automatic movement of the *right* arm, and an incessant, though not severe cough. A mild mercurial purge was early given, followed by a single daily dose of hydrarg. c. creta, ice to the head and the other usual adjuncts. On the second day strabismus in the left eye appeared. On the fourth or fifth day the abnormal heat had disappeared, the squint was less marked, the pupils were largely *dilated*, vision was found to be wholly abolished, and the cough remained the same. The pulse, heretofore firm and resisting, became soft and rather weak. The energetic administration of tonics and stimulants, iodide of potassium, and a nutritious diet, including pepsin and raw beef, comprised the subsequent treatment. The blindness appeared to be total for about ten days, when it, together with the teasing cough and bronchial rales, gradually improved; and the child passed through a tedious but uninterrupted convalescence.

The chief points of interest in this case were, 1st, the early symptoms pointing to active cerebral disease. The pulse, temperature, the teasing cough, the strabismus, the automatic motion of the arm and hand, and in short the *tout ensemble* of the symptoms suggested cerebritis; 2d, the sudden transmutation of the phenomena of the case to those resembling in many respects Marshall Hall's hydrocephaloid disease, from which condition the child was apparently rescued by high stimulation and apoplectic feeding, which constitutes the 3d and not the least important feature of the case.

The Society was sumptuously entertained by the Drs. Sargent.

## Bibliographical Notices.

*A Handbook of Vaccination.* By EDWARD C. SEATON, M.D., Medical Inspector to the Privy Council. American Reprint. Philadelphia: J. B. Lippincott & Co. 1868. Pp. 383.

FINE paper, excellent type, a book just the right size to hold in the hand, and, when taken up, not likely to be laid aside till carefully perused.

We really think this Handbook of Vaccination should be in the possession of every medical man. The young practitioner will find instruction on nearly every page; and mature experience will meet with facts and suggestions which will at least interest.

The general topics touched upon are:—The Natural Cow-pox; the Horse-pox; Pocks in other Animals which have been considered analogous to Cow-pox and Horse-pox; the relation of Cow-pox and Horse-pox to Human Variola; Vaccinia or Cow-pox in the Human Subject; Vaccinating; Arrangements for the performance of Vaccination and the maintenance of Lymph-supply; Conveyance and Storage of Lymph; Skill and Success in Vaccinating, and Insusceptibility to Vaccination; Degeneration of Lymph and recurrence to the Cow; Protection which Vaccination affords against Small-pox; Re-vaccination; Stamping-out local outbreaks of Smallpox; Objections to Vaccination, and the alleged dangers of the practice.

So many leaves had we turned down to indicate points worthy of notice, that we found our proposed quotations would occupy altogether too many pages of the JOURNAL. Of these quotations we therefore select only the most salient.

"The amount of the constitutional affection which, two or three days later, attends the development of the areola (see previous section), varies in different subjects with the texture and vascularity of the parts, with the extent of local inflammation, and with the temperament and age of the individual; infants suffer usually less than elder children, and these less than adults. But, even with the most perfect areola, the general symptoms are often very trifling. In adolescents and adults the course of primary cow-pox is apt to be somewhat more retarded than in infants, the areola is frequently much more diffuse, and there is much oftener swelling in the axillary glands."

The following extract gives Dr. Seaton's views on a question warmly discussed in this JOURNAL about a year ago. The Italics are ours.

"*Phenomena and Course of Revaccination.*—In the majority of persons the regular phenomena of vaccination, such as have been above described, can only be produced once in the lifetime; any subsequent introduction of vaccine lymph either failing to produce any local effect whatever, or (much more commonly) producing a modified effect, resembling one of the forms of spurious vaccination. The absence of effect is relatively most common in the child, the spurious effect most common in the adolescent and adult. This spurious effect consists either in a papule, or (more often) in an acuminated vesicle, with a hard and irregular areola. The symptoms begin early, reach their height by the fifth or sixth day, and then decline. The scab, small and imperfect, forms generally on the eighth day, and soon falls. There is usually much itching, and often considerable constitutional irritation. *Severe constitutional symptoms are, out of all proportion, more frequent in revaccination than in primary vaccination; and in very exceptional cases the vaccine lymph may act as an animal poison, giving rise to phlegmonous erysipelas; some still rarer cases have occurred of pyœmia, terminating fatally.* In a certain proportion of cases, the results of revaccination are the same as those of primary vaccination, the vesicle in shape and character being in no degree distinguishable; in such cases the areola is sometimes small and transitory, and the scab on falling leaves a small and poor cicatrix; at other times the areola is perfect, and a good cicatrix is left. Normal vesicles resulting from revaccination are much more frequent in adults than in children, but I have seen them on the arms of children a few years old, who had excellent marks of their first vaccination."

In an official inquiry (under the direction of the Medical Department of the Privy Council) made in England in 1859, by our author in conjunction with Drs. Stevens, Buchanan and Sanderson, it was found that—

"Taken on the whole, imperfect or incomplete vaccination so far . . . prevailed over England that, on examination of the arms of nearly half a million of vaccinated children, it was found that about one in eight only had been so vaccinated as to have the fullest protection against small-pox that vaccination is capable of affording; that not more than one in three could be considered as even tolerably well protected; and that at least one in four had been so imperfectly done as to run no inconsiderable risk of, at some time or other in their lives, contracting small-pox, and having it badly, probably even fatally. In fact, in the words employed by Dr. Stevens in one of his reports, "A very small proportion of the supposed-to-be-vaccinated population had received such protection from death by small-pox as efficient vaccination is known to give."

"*Insusceptibility to Vaccination.*—Insusceptibility to the infection of cow-pox, even for a very limited period, is an occurrence of excessive rarity. For in the few cases in which good operators fail to infect at the first operation, they rarely fail at a second trial; but now and then, however, a second attempt may not succeed, and even a third operation may not take. But supposing vaccination to have been performed by a practiced hand, *and with lymph direct from the arm*, three successive weeks without result, it may be fairly assumed that there is temporary insusceptibility. Cases are recorded, and others have been stated to me on authority on which I can rely, but I have never met with any myself, in which persons have by skilful hands been vaccinated again and again, at intervals of months and years, without the vaccination taking effect. We are not, however, to infer from this that the insusceptibility was permanent, and still less that the person was at all safe from small-pox. We do not know even that, while the insusceptibility to vaccination lasts, there is in all persons corresponding insusceptibility to small-pox, though this may very probably be the case. But supposing this to be so, a change of constitution may assuredly, at some quite indeterminate and unknown period, render the hitherto insusceptible person susceptible to one or the other, probably to whichever he may be first exposed, of these infections."

"So far as the correct character and course, and the energy (if I may so say) of the vaccine vesicle are evidences of its prophylactic power against small-pox, I cannot but concur entirely, from personal observation, with the statement which the National Vaccine Board made in 1854, "that the vaccine lymph does not lose any of its prophylactic power by a continued transit through successive subjects, and that it is a fallacy to predicate the necessity of resorting to the orginal source of the cow for a renewed supply."

"By observations, of unsurpassable interest and value, made for upwards of thirty years at the Small-pox Hospital, it has been demonstrated that the extent to which small-pox, if it should be contracted at all after vaccination, is modified by the vaccination, is determined by the character and number of the cicatrices; that is in the exact ratio of the excellence and completeness of the vaccination, as determined by these tests. Persons whose vaccination has resulted in their having one genuine vaccine vesicle, and one only, are, as a class, much less protected than those who have had two, those who have had two than those who have had three, &c.; and the protection against fatal small-pox which is afforded by four or more genuine vesicles is almost absolute. The subjoined table, giving the results of Marson's observations on nearly 5000 post-vaccinal cases which occurred in the twenty years from 1836 to 1855 inclusive, will show, at a glance, the influence exercised on the course of small-pox by the character and number of the vaccine marks:

| Classification of Patients affected with smallpox. | Number of Deaths per cent. in each class respectively. |
|---|---|
| 1. Unvaccinated . . . . . . | 35 |
| 2. Stated to have been vaccinated, but having no cicatrix . . . . . . | 23·57 |
| 3. Vaccinated— | |
| *a.* Having one vaccine cicatrix . | 7·73 |
| *b.* Having two vaccine cicatrices . . | 4·70 |
| *c.* Having three vaccine cicatrices . | 1·95 |
| *d.* Having four or more vaccine cicatrices | 0·55 |
| a. Having well-marked cicatrices . | 2·52 |
| b. Having badly marked cicatrices . | 8·82 |
| 4. Having previously had smallpox . | 19 |

"It is in the classes which had only one or two cicatrices that the influence of *character* of the cicatrix was most remarkably seen. In those who had one cicatrix only, if this cicatrix were thoroughly well marked, the death-rate per cent. was 3·83; but among cases in which the single cicatrix was badly marked, the death-rate was 11·91 per cent. And while among the cases which had two well-marked cicatrices the death-rate per cent. was 2·32, among cases which had two badly-marked cicatrices the rate was 8·34."

"In 1863, during the epidemic of small-pox then raging in London, Dr. Buchanan and I, in the course of an examination of upwards of 50,000 children in national and infant schools, workhouses, &c., with the view of ascertaining what proportion were unvaccinated, what proportion had been vaccinated, and how, among these latter, the vaccination had been done, took occasion also to note how far the children, in each of the classes respectively, had marks of small-pox."

"The following were the results of our observations :—

| CLASSIFICATION OF CHILDREN. | Number examined of each class. | Number in each class that had traces of small-pox. | Proportion having traces of small-pox per 1000 children, in each class respectively. |
|---|---|---|---|
| 1. Without any mark of vaccination | 2,837 | 1,010 | 360 |
| 2. With doubtful m'k of vaccination | 508 | 30 | 59 |
| 3. With m'k or m'ks of vaccination | 49,570 | 88 | 1·78 |

And, on further classification of the vaccinated children with reference to the kind of vaccination, the results were these :—

| Classification of Vaccinated Children. | Proportion having marks of small-pox per 1000 children, in each class respectively. |
|---|---|
| *a.* Having one vaccine cicatrix | 6·80 |
| *b.* Having two vaccine cicatrices | 2·49 |
| *c.* Having three vaccine cicatrices | 1·42 |
| *d.* Having four or more vaccine cicatrices | 0·67 |
| a. Having cicatrix or cicatrices of bad quality | 7·60 |
| b. Having cicatrix or cicatrices of tolerable quality | 2·35 |
| c. Having cicatrix or cicatrices of excellent quality | 1·22 |

"The extremes were represented by children having four or more vaccine marks of perfect character, of whom only 0·62 per 1000 had a trace of small-pox, and children having a single vaccine mark of bad quality, of whom we found 19 per 1000 with marks of small-pox. But these numerical statements by no means bring out the whole difference that existed between the vaccinated and the unvaccinated, or between the well vaccinated and the ill vaccinated. For the marks which small-pox had left on most of the vaccinated children, and particularly on the well vaccinated, were very slight—such as without some care might have passed undetected—and in only exceptional cases were in the least disfiguring: while of the unvaccinated, a very large proportion were seriously marked and disfigured, some being really hideous to look at, and several suffering from permanent blindness and deafness, the consequences of small-pox."

"Revaccination about or after puberty is of extreme importance when the primary vaccination has been anything short of Marson's highest class, and is necessary in proportion as it falls short of it: but it seems also certain that a revaccination at or after this period of life, may give additional security to many whose original vaccination has been complete. In some of these, as we have already seen, the susceptibility to variola is not wholly exhausted, and such may contract the disease, though no doubt with slight comparative danger, after growing up. But even in its most modified form, small-pox is a disease which all would desire to escape, and well-conducted revaccination appears to afford a very sure and reliable means of such escape. After successful revaccination, small-pox, even of the most slight or modified kind, is rarely met with."

"Nothing can put in a stronger light the value of revaccination than Marson's statement of his experience at the Small-pox Hospital. He tells us, firstly, that during the period of his connection with the hospital, not one of the nurses or servants had taken small-pox during her residence there, each one of them who had not already had small-pox having been carefully revaccinated before being allowed to enter on her duties; and, secondly, that when the new hospital was built (some thirteen or fourteen years ago), and a large number of workmen were there employed for several months after the arrival of the patients, most of the workmen consenting to be revaccinated, not a single case of small-pox occurred among those so consenting, while two cases of the disease did occur *among the few* who were not revaccinated. In places where small-pox has been epidemic, the total, or all but total, exemption of revaccinated persons, when others who had been vaccinated in childhood, but not revaccinated since, were in some proportion attacked, has been matter of quite familiar observation among medical practitioners. The reports of the Académie Impériale de Médecine abound with such cases; and from them, and other sources, many instances might be cited precisely parallel to Marson's observations on the workmen at the Small-pox Hospital—instances in which the revaccinated members of an infected family escaped any form of infection, while those who had declined revaccination, had to sustain an attack of small-pox. Nor, wherever small-pox has broken out in public institutions, and means have been at once taken to revaccinate those adolescents or adults who had not before been revaccinated, and those children who properly required it, am I aware of a single instance in which the disease has not been summarily brought to an end.

"From these considerations we draw the important practical rule, that every person should take care to be revaccinated about, or soon after, the period of puberty. Under ordinary circumstances, about fifteen years of age is the best time for it to be done, and it should not be left much beyond this, for the age of most danger from post-vaccinal small-pox is from fifteen to twenty-five. On the other hand, where there is any unusual risk of small-pox, as in localities in which the disease is prevailing, it would be imprudent to wait so long, and the revaccination may be done at any period after twelve years of age, or, in individual cases, even earlier than this. In girls, especially, in whom the changes connected with puberty manifest themselves early, revaccination may be performed correspondingly early."

"*Local results of Revaccination: no indication is derivable therefrom as to the person's liability to contract Smallpox.*—The immediate results of the performance of revaccination may be either the complete umbilicated vaccine vesicle, or the modified vesicle or papule, or entire failure. The following table, exhibiting the results of revaccination on each 1000 individuals revaccinated in the Wirtemberg army in 1831–5, and in our own army in 1861, appears to me to represent a larger ratio of complete results (perfect vaccine vesicles) than we ordinarily meet with in civil practice, but there is no statistical record of revaccinations in civil practice made on so large a scale as would justify me in presenting it. It shows, at all events approximately, what may be looked for in the revaccination of adults generally.

| Persons in whom the Revaccinations were performed. | Degree of Success of Revaccination. | In those who bore marks of previous small-pox. | In those who bore good marks of previous Vaccination. | In those who bore doubtful or imperfect marks of previous Vaccination. | In those who bore no marks of previous Vaccination or Smallpox. |
|---|---|---|---|---|---|
| Wirtemberg Army, 1831–5 (13,861 cases). | Perfect . . | 319·5 | 310·4 | 280·7 | 337·3 |
| | Modified . . | 248·1 | 280·5 | 259·0 | 191·1 |
| | None . . . | 432·3 | 409·2 | 460·4 | 471·6 |
| | | 1000 | 1000 | 1000 | 1000 |
| Soldiers in Brit. Army, not recruits, in 1861 (2053 cases). | Perfect . . | 451·4 | 484·6 | 236·8 | 326·0 |
| | Modified . . | 159·6 | 157·4 | 505·3 | 277·5 |
| | None . . . | 389·0 | 358·0 | 257·9 | 396·5 |
| | | 1000 | 1000 | 1000 | 1000 |
| Recruits in Brit. Army, in 1861 (4395 cases). | Perfect . . | 345·5 | 407·3 | 461·3 | 527·3 |
| | Modified . . | 266.8 | 240·8 | 301·3 | 202·6 |
| | None . . . | 387·7 | 351·9 | 237·4 | 270·1 |
| | | 1000 | 1000 | 1000 | 1000 |

"One important practical conclusion we clearly derive from this table, and from the large experience which is now accumulated on the subject of revaccination. The local results obtained by the revaccination of any individual give us absolutely no information as to the constitutional condition in which the revaccinated person was with regard to liability to contract smallpox. It has frequently been argued, and is indeed often to be heard said now, that if a revaccination cannot be made to take, or if it take only in a modified way, it is evidence that the constitution would not at the time take smallpox; whereas, if a complete local result follow, it may be assumed that the protection of the primary vaccination had worn out, and that the person was in danger, or at all events in more danger than in the former case, of taking the variolous infection. Now, if this were so, the Wirtemberg results would prove that 319 out of every thousand persons who had had smallpox, 310 out of every thousand who had been well vaccinated, but only 281 out of every thousand who had been ill-vaccinated, were in present danger of taking smallpox; and of the soldiers (not recruits) in our own army, 451, 485, and 237 would represent the ratio in the three classes respectively, which is clearly a *reductio ad absurdum*. M. Vleminkx, finding the results of his revaccinations of the prisoners in Belgium more successful in those who had marks of smallpox than in those who had good marks of vaccination, in the proportion of 30 per cent. of the former to 19 per cent. of the latter, argued that it was more important to vaccinate those who had had smallpox than to revaccinate persons who had good marks of vaccination: with perfect logical consistency, if only the premises were sound that the "taking" of vaccine in a protected person shows anything whatever with regard to the liability to receive variola. Jenner himself distinctly pointed out that this was not the case. 'Although,' he says in his first Tract, 'the cow-pox shields the constitution from the small-pox, and the small-pox proves a protection against its own future poison, yet it appears that the human body is again and again susceptible of the infectious matter of the cowpox;' and he gives instances in which the cow-pox was thus taken twice or thrice by persons who could not be variolated either by inoculation or by exposure.

"Further, in one of his subsequent essays, speaking of the vaccination of those who had already had small-pox, he observes that 'although the susceptibility of the virus of the cow-pox is for the most part lost in those who have had the small-pox, yet in some constitutions it is only partially destroyed, and in others it does not appear to be in the least diminished. By far the greater number on whom trials were made resisted it entirely; yet I found some on whose arms the pustule from inoculation (vaccination) was formed completely, but without producing the common efflorescent blush around it, or any constitutional illness, while others have had the disease in the most perfect manner.' Exactly in the same way, as he pointed out, the perfect *variolous pustule*, a pustule capable of communicating variola to others, may be raised in the skin of a person who has had variola without in the least degree giving him a second time *the disease* variola.

"The utility and necessity of revaccination do not stand on any speculative reasoning from the local phenomena it develops, but upon broad grounds of observation and experience."

Notwithstanding all that has been published by Dr. Seaton and others on the subject of vaccination, we do not feel sure that the evidence is all in, or that the last word has been said. P.

Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 17, 1868.

## HOW TO STUDY MEDICINE.—NO VI.

WE notice that modern text books have dropped the time-honored title of "Theory and Practice," and are styled either the "Science and Practice," or simply the "Practice of Medicine." This change marks greater ones than appear on the surface. It indicates a new view and a new tendency in teaching our profession. Theories have always been the bane of students and of authors. The former, particularly, adopt them at the earliest stage of their studies, and suck in speculation with the first drop of medical nourishment from their alma mater. They will, most of them, be surprised as they grow older, to find not only how baseless are their theories, but how rapidly they slough them off when in the active practice of their profession. Theories and science differ *toto cœlo*. The one deals with illusory arguments; the other with empirical facts. The sooner the very name of theory is dropped out of sight the better. It is the refuge of the wavering, the ignorant and the quack. On the other hand, the causes, the symptoms and the natural history of diseases can alone indicate the treatment of them with scientific accuracy.

But apart from this view, we believe that these changes point out, also, the tendency of the times in studying and teaching medicine, namely, by practical clinical instruction, rather than by systematic and voluminous treatises of diseases. In Paris, particularly, the chairs of clinical medicine, even when filled by less distinguished masters than Trousseau, have always been preëminent as the great professorships of our art. It is the same in Germany; and it will, ere long, be so in our own country.

The past history of diseases may be traced by books and systematic lectures; but the practice of medicine is to be followed in the sick-room or in the hospital ward. Bedside instruction, however it can be attained, is the true course for the student; and clinical lectures are worth more to him than any he can read equally well in books. We trust, then, that the time will come in our colleges when the long courses on the theory and practice of medicine may be shortened, and those which combine clinical with didactic teaching may have equal, if not more time, assigned to them.

In certain branches of practice, as the diseases of children, lectures are almost useless, since we must study these affections by actual observation alone. In certain other branches, as midwifery, the same mode of study is most desirable and valuable, but it is difficult for the student to get practical cases to observe.

To bring to a close these somewhat extended attempts to illustrate the pursuit of our art, we may sum up our views of the way to study medicine, as follows:—

*First.* As the Basis of a Medical Education, a preliminary education is absolutely essential; and this training, as far as languages are concerned, should be directed more to French and German, than to Latin and Greek.

*Second.* The cultivation of the powers of observation and of reasoning is of more importance than those of memory or imagination. And in order to strengthen the perceptive powers, the positive sciences, like Mathematics, Physics and Chemistry, and the natural sciences, so called, as Natural History, Botany and even Comparative Anatomy, should occupy more of our time than the Classics, or History.

*Third.* Chemistry and Anatomy, being the only exact sciences in medicine, form the foundation of our Art. It is important that the student should *select* these as his exclusive studies for the first year. To dissect is the way to study anatomy. Books and plates are mere adjuvants. Demonstration and Recitation impart more thorough knowledge than Lectures. Regional Anatomy is of more consequence than systematic.

*Fourth.* Medicine is best studied, all the year round, in large cities and in schools. Chemistry is to be followed in the Laboratory, as well as in the Lecture-room. Toxicology, the Analysis of Urine, and the incompatibles in pharmacy are, for us, its most practical parts.

*Fifth.* Physiology and Pathology are also practical and demonstrable branches. Physiology is to be studied by vivisections; Pathology by autopsies and morbid specimens. Both should occupy an early and prominent place in our professional studies. By experimental physiology alone, can we learn the laws of functional life, and test the effect of drugs.

*Sixth.* Surgery grows directly out of Anatomy, and should be studied in this connection, and before Materia Medica, Theory and Practice, *et cetera.* The principles of surgery should be taught more briefly than the practice. The second year's student should follow the surgical practice of Hospitals and Dispensaries, before attempting the medical.

Clinical surgery, surgical Pathology and surgical Anatomy should occupy most of the time devoted to the study of surgery.

*Seventh.* The study of Materia Medica should be pursued as follows: Botany, Pharmacy, Physiological action, Therapeutical action of Drugs. Botany and Pharmacy are more neglected than any branches of medicine; all four should be studied practically and experimentally.

*Eighth.* The theories of medicine should be abandoned, and the practice studied clinically; books and systematic lectures serving only to preserve and unfold the experience of the past. The diseases of children and midwifery cannot be learned except at the bed-side.

*Ninth.* Specialties should never be studied or practised without a previous complete education and practice of all the branches of medicine. The student can learn so much in no other way as by passing a year in a Hospital. Next to this in importance is a year or two in Europe to finish his education.

*Tenth.* No one should study medicine as the business of life who has not a marked love for it, and is not thoroughly in earnest.

If he is lacking in these points he will fail of success. Having decided to study it, we hold that its branches are best learned in the following order:

Chemistry, Anatomy, Physiology, Pathology, Surgery.

Botany, Pharmacy, the use of Drugs; the Science and Practice, and Clinical Medicine; Midwifery; Specialties.

TWO SIMPLE APPARATUS FOR THE READY DETECTION OF PHOSPHORUS, ARSENIC, AND ANTIMONY IN MINUTE QUANTITIES, FOR THE USE OF PHYSICIANS. By Dr. D. MÜLLER.—1. The first apparatus consists of a glass flask of about 100 cubit centimetres capacity, closed by a cork which is perforated by a slender glass tube at least 85 centim. high and 3 millimetres wide.

Some of the contents of the stomach (or other suspected substance) is introduced into the flask, water is added, and the whole boiled.

In the dark, the slightest trace of phosphorus will immediately cause a lightning-like, twitching phosphorescence—even if only the hundredth part of the phosphorus of a match be present.

2. The second apparatus consists of a small test-tube capable of containing 15 cubic centimetres, half filled with dilute hydrochloric acid, and closed by a caoutchouc stopper. A second stopper of the same material is furnished with a glass tube 3 millimetres wide and about 4 centimetres long, bent at right angles, one end drawn out to a point about 1 mm. wide.

To test the contents of the stomach, a few pieces of thin sheet zinc are put into the acid, so that a pretty strong evolution of hydrogen takes place, and the test-tube is closed after a few seconds with the stopper bearing the glass tube. The escaping stream of hydrogen is then lighted, and the flame held close to a cold plate of white china. If no spot is produced, the acid and zinc are proved free from arsenic. Some of the gastric contents should then be added, the vessel closed, and after a few seconds' escape of gas, the latter should be lighted and the flame again directed against the cold surface. If a dark spot shows itself, it is proven that arsenic or antimony is present in the contents of the stomach tested.

The arsenical spot can be easily distinguished from that produced by antimony by external marks. In case of doubt, a solution of chloride of lime or Javelle's fluid should be poured over the spot. If the latter is dissolved, it consisted of arsenic; if not, of antimony.—*Med.-chir. Rundschau*, May, 1868; from *Berliner klin. Wochenschrift.*

CASE OF BRIGHT'S DISEASE CONSEQUENT UPON AGUE. By J. B. BRADBURY, M.B.—This case is interesting from the fact that Bright's kidney is rarely found as an immediate sequela to ague. Dr. Roberts states that he has never met with such a case, and quotes Becquerel and Frerichs to the effect that, "in dropsies following intermittent fever, they had never found evidence of kidney-disease." The reporter omits all mention of the previous habits of the patient, which might have had an important bearing in the causation of this case. The heroic treatment to which this patient was subjected we can hardly advise to be followed:—

W. B., aged 36, married, a farm-laborer, living at Upnell, was admitted into Addenbrooke's Hospital, under the care of Dr. Paget, on September 8, 1866.

*Previous History.*—He was quite well till about twelve months ago, when he had quartan ague, since which time he had done very little work. The ague lasted for five or six months, and reduced his strength a great deal. Soon after the ague left him, his legs and feet began to swell, the dropsy gradually extending to the scrotum and abdomen. He was under Dr. Latham as an in-patient in the summer, and left the hospital at his own request before he was quite well. Shortly after returning home, he caught cold, and his legs and feet began to swell again. Sickness and severe headaches came on, and he lost his appetite. For seven weeks previous to his admission he had been confined to his bed.

*State on Admission.*—There were pallor and puffiness of the face and dropsy of the legs, scrotum, and abdomen. The tongue was clean, but pale. Pulse 90, very feeble. The urine was about normal in quantity; of specific gravity, 1047; it almost became solid with heat and nitric acid. It contained hyaline, granular, and fatty casts. He complained of pain across the loins. There was no cardiac or pulmonary disease. After his admission, he had four or five attacks of ague of the quartan variety, each fit lasting three or four hours.

He was at first treated with half-drachm doses of compound jalap powder every other morning, and five minims of tincture of perchloride of iron three times a day. On the supervention of the ague, the iron was changed for quinine in three-grain doses. Under this treatment, there was very little diminution of the dropsy; so on September 27th his legs were punctured. He subsequently took quarter-grain doses of the extract of elaterium every other morning for a week. Although the elaterium acted very freely on the bowels, the abdomen did not become much softer, so on October the 8th he was ordered the following diuretic:—℞. Potassæ bitart. gr. xx.; tinct. digitalis, ♏x.; aquæ juniperi, ℥iss. M. Sumat bis quotidie.

After he had taken this mixture for a short time, there was considerably less œdema of his legs and scrotum, and he got smaller in girth. The urine became more abundant, but the quantity of albumen did not alter.

He became so much better toward the end of November that he was allowed to be made an out-patient. Dr. Paget informs me that the patient has presented himself from time to time at the hospital, and that the last time he saw him the dropsy had quite disappeared, and that the man was able to work.—*Brit. Med. Jour.*

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CONTRIBUTION TO THE ÆTIOLOGY OF VAGINISMUS. By W. NEFTEL, M.D., New York.—During the last two years I have had the opportunity of observing three cases of lead-poisoning, particularly interesting by their combination with vaginismus. All three were young women of good social standing, and one of them had been married several years. In all these cases the phenomena of lead-poisoning were so characteristic that I was able to make a correct diagnosis. The patients were unable to lift the hands and fingers, or to abduct the thumb. There was complete paralysis, with atrophy, of the extensor digitorum communis, extensor carpi ulnaris, radialis pollicis longus, and abductor pollicis; but the supinator muscles, as well as the deltoid, biceps, triceps, and others were normal. The electro-muscular contractility and sensibility were much diminished or entirely lost. The cause of the lead-poisoning in all these cases could be attributed only to the long-continued use of a cosmetic containing lead.

But the most remarkable feature in these three cases was the combination of lead-poisoning with vaginismus in its intensest degree; and in consequence of the latter the married lady was sterile, as sexual intercourse was quite impossible. In none of these cases could any particular cause of this hyperæsthesia be detected.

My first two patients were entirely cured by electricity (faradaic and galvanic currents), together with the use of medicines (iodide of potassium, sulphur), not only of the paralysis but also of the vaginismus—against which, however, no particular treatment had been directed—and the married lady has since borne a child. I will add, that in the married patient the vaginismus was already developed to the highest degree, while the extensor muscles of the hands were not yet completely paralyzed, but only weakened, and the fore-arms painful. Accordingly the greatest attention was paid to the condition of the sexual apparatus, which was considered by the attending physicians as the source of the supposed hysterical paralysis. With my present experience, I am inclined to adopt quite a different opinion. I would consider the lead-poisoning as the cause of vaginismus, and the treatment of lead-poisoning sufficient to cure vaginismus, in the same way as it does an analogous condition—saturnine colic.

The third case mentioned was a patient of Dr. Sayre. On the 28th of September last, he kindly invited me, together with Dr. Marion Sims, to see a young lady suffering, as was thought, from obscure disease of the spine, for which she had worn a brace for two years. On hearing the account of the symptoms, I at once stated my conviction that the case was one of lead palsy, which, on the subsequent examination, was fully confirmed. Here, too, vaginismus accompanied the paralysis of the extensor muscles of the hands.

I bring these few instances before the profession, in order that more numerous observations should either confirm my idea of the ætiology of vaginismus, or prove that in my cases the lead-poisoning was an accidental complication.—*Medical Record.*

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THE ARMY MEDICAL MUSEUM continues to increase in value and usefulness. During the year six hundred and seventy-three (673) specimens have been added to the surgical section, one hundred and twenty-one (121) to the medical section, two hundred and two (202) to the section of comparative anatomy, six hundred and eighty-seven (687) specimens and one hundred and fourteen (114) photographic negatives of microscopical specimens to the microscopical section. An anatomical section of one hundred and sixty-three (163) specimens has been formed, and is rendered of especial interest by the large proportion of typical crania of the North American Aborigines which it contains.—*U. S. A. Surgeon-General's Report.*

## Selections and Medical Items.

**Hernia of Ovary ; Operation ; Death.**—Dr. Englisch mentioned this case at a meeting of the Medical Society of Vienna (April 3d, 1868). The patient was thirty-two years old, had suffered from a reducible tumor in the left groin for thirteen years, and presented, on admission into the hospital, all the symptoms of strangulated hernia. As the taxis did not succeed, the usual operation was resorted to, and, on opening the sac, the ovary and Fallopian tube were discovered, but not a trace of intestine. The former were tied and removed. Twelve days after the herniotomy the patient died of severe erysipelas and partial peritonitis. At the next meeting, Dr. Weinlechner brought before the notice of the Society a woman of thirty-two, presenting ovarian hernia on both sides. She had never actually menstruated, but at each period molimen was apparent, with swelling of the inguinal tumors. The vagina ended above in a cæcal pouch, and absence or extremely small size of the uterus was suspected. The patient was not deficient in sexual sensations.—*London Lancet.*

**Operation for Stricture of the Urethra.**—At a recent meeting of the Medical Society of the County of New York, Dr. Wood described an operation which he had for some years been performing, and of which he had seen no mention in the practice of other surgeons. Cutting down, after Syme's plan—a staff being fixed at the distal end of the stricture and a slender bougie being also, if possible, passed into the bladder—he had found that, as he approached the urethra by slow and cautious dissection through the fibrinous deposit, the stricture would gradually yield, until, without entering the canal or wounding the mucous membrane, he could by degrees press the staff on towards the bladder. This mode of relieving the stricture answered to the operation for strangulated hernia without opening the sac. He had repeatedly performed it successfully; he had also repeatedly failed, and been obliged to cut into the urethra, as would always be the case in traumatic stricture, or in idiopathic where the mucous membrane was much diseased. But it was always worth trying, for where applicable it offered the great advantage of rendering urinary infiltration an impossibility. And to such infiltration and the pyæmia consequent upon it were to be ascribed most of the fatal results of perinæal section.—*Medical Record.*

**Lister's Method in Germany.**—Dr. Bohm stated, in June last, before the Medical Society of Vienna, that he believed the good effects of this method were mostly owing to occlusion. He expressed himself highly pleased with the results he obtained in some cases; but he found those results exactly the same when using chalksoil without carbolic acid. Hence, the advantages of the method Dr. Bohm attributed mainly to the exclusion of air. Professor Dittel, who has largely experimented with the method, remarked that he had found it very useful in compound fractures; and if the carbolic acid is proved to be an unnecessary addition, the application of the method would become less expensive.—*London Lancet.*

**Elephantiasis of Leg successfully treated by Blistering.**—At the Royal Infirmary, Liverpool, under Mr. Bickersteth's care, there is a female patient who was admitted with elephantiasis of the left leg, the disease being of a very extensive nature, and affecting the whole extremity. The treatment employed was repeated blistering, with rest, and has been attended with the most satisfactory results, the leg having in less than two months become reduced in size to such an extent that it is now only a little larger than the healthy limb.—*Med. Times and Gazette.*

**A Novel Prescription for Gun-Shot Wounds.**—About the years 1665 and 1666, *Richard Wiseman*, who had served in the armies of James I. and Charles II. as surgeon, advocated the following formula for gun-shot injuries: "Boil in two pounds of oil of lilies two new-whelped puppies till the flesh fall from their bones; add some earthworms in wine. Then strain, and to the strained liquor add ℥ij. of turpentine, and an ounce of spirit of wine."—*Med. Record.*

## MEDICAL DIARY OF THE WEEK.

**Monday**, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

**Tuesday**, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Medical Lecture. 9 to 11, A.M., Boston Dispensary. 10–11, A.M., Massachusetts Eye and Ear Infirmary.

**Wednesday**, 10 A.M., Massachusetts General Hospital Surgical Visit. 11 A.M., OPERATIONS.

**Friday**, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

**Saturday**, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**To Correspondents.**—Communication declined:—A Case of Diuresis.

**Books and Pamphlets Received.**—A Treatise on the Principles and Practice of Medicine and Pathology, &c. By W. Paine, M.D. 3d Edition. Philadelphia.—The Philadelphia System of Obstetrics, in twelve Parts. Fully Illustrated. Designed for a Text-book for Students and as reference for the Practitioner. By Joseph S. Longshore, M.D., Professor, &c., in the Philadelphia University of Medicine and Surgery.

**Died,**—In Providence, R. I., Dec. 3d, Henry Wheaton Rivers, M.D., 54 years.—In New York city, Dec. 6th, Dr. John O'Reilly.—Near Oakley Station, S. C., Dr. J. Rhett Motte, aged 56 years, a graduate of Harvard University, class of 1832.

**Deaths in Boston** for the week ending Saturday noon, December 12th, 102. Males, 53—Females, 49.—Accident, 2—apoplexy, 2—congestion of the brain, 1—disease of the brain, 3—bronchitis, 3—cancer, 1—consumption, 21—convulsions, 1—croup, 8—cyanosis, 2—debility, 2—diarrhœa, 1—diphtheria, 5—dropsy, 1——dropsy of the brain, 3—dysentery, 1—erysipelas, 2—scarlet fever, 2—typhoid fever, 3—disease of the heart, 7—insanity, 1—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 9—marasmus, 2—old age, 2—paralysis, 3—puerperal disease, 2—rheumatism, 1—scrofula, 1—tumor, 1—whooping cough, 1—unknown, 4.

Under 5 years of age, 31—between 5 and 20 years, 18—between 20 and 40 years, 24—between 40 and 60 years, 16—above 60 years, 13. Born in the United States, 67—Ireland, 27—other places, 8.